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5 <110> Janssen Pharmaceutica N.V.
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atc ttc ctt gct tat gag acc aag agt gtg tcc act gag aag atc aat Ile Phe Leu Ala Tyr Glu Thr Lys Ser Val Ser Thr Glu Lys Ile Asn 785 790 795 800	2400
gat cac cgg gct gtg ggc atg gct atc tac aat gtg gca gtc ctg tgc	2448

Asp His Arg Ala Val Gly Met Ala Ile Tyr Asn Val Ala Val Leu Cys			
805	810	815	
ctc atc act gct cct gtc acc atg att ctg tcc agc cag cag gat gca			2496
Leu Ile Thr Ala Pro Val Thr Met Ile Leu Ser Ser Gln Gln Asp Ala			
820	825	830	
gcc ttt gcc ttt gcc tct ctt gcc ata gtt ttc tcc tcc tat atc act			2544
Ala Phe Ala Phe Ala Ser Leu Ala Ile Val Phe Ser Ser Tyr Ile Thr			
835	840	845	
ctt gtt gtg ctc ttt gtg ccc aag atg cgc agg ctg atc acc cga ggg			2592
Leu Val Val Leu Phe Val Pro Lys Met Arg Arg Leu Ile Thr Arg Gly			
850	855	860	
gaa tgg cag tcg gag gcg cag gac acc atg aag aca ggg tca tcg acc			2640
Glu Trp Gln Ser Glu Ala Gln Asp Thr Met Lys Thr Gly Ser Ser Thr			
865	870	875	880
aac aac aac gag gag aag tcc cgg ctg ttg gag aag gag aac cgt			2688
Asn Asn Asn Glu Glu Lys Ser Arg Leu Leu Glu Lys Glu Asn Arg			
885	890	895	
gaa ctg gaa aag atc att gct gag aaa gag gag cgt gtc tct gaa ctg			2736
Glu Leu Glu Lys Ile Ile Ala Glu Lys Glu Glu Arg Val Ser Glu Leu			
900	905	910	
cgc cat caa ctc cag tct cgg cag ctc cgc tcc cgg cgc cac cca			2784
Arg His Gln Leu Gln Ser Arg Gln Gln Leu Arg Ser Arg Arg His Pro			
915	920	925	
ccg aca ccc cca gaa ccc tct ggg ggc ctg ccc agg gga ccc cct gag			2832
Pro Thr Pro Pro Glu Pro Ser Gly Gly Leu Pro Arg Gly Pro Pro Glu			
930	935	940	
ccc ccc gac cgg ctt agc tgt gat ggg agt cga gtg cat ttg ctt tat			2880
Pro Pro Asp Arg Leu Ser Cys Asp Gly Ser Arg Val His Leu Leu Tyr			
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aag tga			2886
Lys			

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<400> 2

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20	25	30	

Ile His Pro Pro Trp Glu Gly Gly Ile Arg Tyr Arg Gly Leu Thr Arg
35 40 45

Asp Gln Val Lys Ala Ile Asn Phe Leu Pro Val Asp Tyr Glu Ile Glu
50 55 60

Tyr Val Cys Arg Gly Glu Arg Glu Val Val Gly Pro Lys Val Arg Lys
65 70 75 80

Cys Leu Ala Asn Gly Ser Trp Thr Asp Met Asp Thr Pro Ser Arg Cys
85 90 95

Val Arg Ile Cys Ser Lys Ser Tyr Leu Thr Leu Glu Asn Gly Lys Val
100 105 110

Phe Leu Thr Gly Gly Asp Leu Pro Ala Leu Asp Gly Ala Arg Val Asp
115 120 125

Phe Arg Cys Asp Pro Asp Phe His Leu Val Gly Ser Ser Arg Ser Ile
130 135 140

Cys Ser Gln Gly Gln Trp Ser Thr Pro Lys Pro His Cys Gln Val Asn
145 150 155 160

Arg Thr Pro His Ser Glu Arg Arg Ala Val Tyr Ile Gly Ala Leu Phe
165 170 175

Pro Met Ser Gly Gly Trp Pro Gly Gly Gln Ala Cys Gln Pro Ala Val
180 185 190

Glu Met Ala Leu Glu Asp Val Asn Ser Arg Arg Asp Ile Leu Pro Asp
195 200 205

Tyr Glu Leu Lys Leu Ile His His Asp Ser Lys Cys Asp Pro Gly Gln
210 215 220

Ala Thr Lys Tyr Leu Tyr Glu Leu Leu Tyr Asn Asp Pro Ile Lys Ile
225 230 235 240

Ile Leu Met Pro Gly Cys Ser Ser Val Ser Thr Leu Val Ala Glu Ala
245 250 255

Ala Arg Met Trp Asn Leu Ile Val Leu Ser Tyr Gly Ser Ser Ser Pro
260 265 270

Ala Leu Ser Asn Arg Gln Arg Phe Pro Thr Phe Phe Arg Thr His Pro
275 280 285

Ser Ala Thr Leu His Asn Pro Thr Arg Val Lys Leu Phe Glu Lys Trp
290 295 300

Gly Trp Lys Lys Ile Ala Thr Ile Gln Gln Thr Thr Glu Val Phe Thr
305 310 315 320

Ser Thr Leu Asp Asp Leu Glu Glu Arg Val Lys Glu Ala Gly Ile Glu
325 330 335

Ile Thr Phe Arg Gln Ser Phe Phe Ser Asp Pro Ala Val Pro Val Lys
340 345 350

Asn Leu Lys Arg Gln Asp Ala Arg Ile Ile Val Gly Leu Phe Tyr Glu
355 360 365

Thr Glu Ala Arg Lys Val Phe Cys Glu Val Tyr Lys Glu Arg Leu Phe
370 375 380

Gly Lys Lys Tyr Val Trp Phe Leu Ile Gly Trp Tyr Ala Asp Asn Trp
385 390 395 400

Phe Lys Ile Tyr Asp Pro Ser Ile Asn Cys Thr Val Asp Glu Met Thr
405 410 415

Glu Ala Val Glu Gly His Ile Thr Thr Glu Ile Val Met Leu Asn Pro
420 425 430

Ala Asn Thr Arg Ser Ile Ser Asn Met Thr Ser Gln Glu Phe Val Glu
435 440 445

Lys Leu Thr Lys Arg Leu Lys Arg His Pro Glu Glu Thr Gly Gly Phe
450 455 460

Gln Glu Ala Pro Leu Ala Tyr Asp Ala Ile Trp Ala Leu Ala Leu Ala
465 470 475 480

Leu Asn Lys Thr Ser Gly Gly Gly Arg Ser Gly Val Arg Leu Glu
485 490 495

Asp Phe Asn Tyr Asn Asn Gln Thr Ile Thr Asp Gln Ile Tyr Arg Ala
500 505 510

Met Asn Ser Ser Ser Phe Glu Gly Val Ser Gly His Val Val Phe Asp
515 520 525

Ala Ser Gly Ser Arg Met Ala Trp Thr Leu Ile Glu Gln Leu Gln Gly
530 535 540

Gly Ser Tyr Lys Lys Ile Gly Tyr Tyr Asp Ser Thr Lys Asp Asp Leu
545 550 555 560

Ser Trp Ser Lys Thr Asp Lys Trp Ile Gly Gly Ser Pro Pro Ala Asp
565 570 575

Gln Thr Leu Val Ile Lys Thr Phe Arg Phe Leu Ser Gln Lys Leu Phe
580 585 590

Ile Ser Val Ser Val Leu Ser Ser Leu Gly Ile Val Leu Ala Val Val
595 600 605

Cys Leu Ser Phe Asn Ile Tyr Asn Ser His Val Arg Tyr Ile Gln Asn
610 615 620

Ser Gln Pro Asn Leu Asn Asn Leu Thr Ala Val Gly Cys Ser Leu Ala
625 630 635 640

Leu Ala Ala Val Phe Pro Leu Gly Leu Asp Gly Tyr His Ile Gly Arg
645 650 655

Asn Gln Phe Pro Phe Val Cys Gln Ala Arg Leu Trp Leu Leu Gly Leu
660 665 670

Gly Phe Ser Leu Gly Tyr Gly Ser Met Phe Thr Lys Ile Trp Trp Val
675 680 685

His Thr Val Phe Thr Lys Lys Glu Glu Lys Lys Glu Trp Arg Lys Thr
690 695 700

Leu Glu Pro Trp Lys Leu Tyr Ala Thr Val Gly Leu Leu Val Gly Met

705

710

715

720

Asp Val Leu Thr Leu Ala Ile Trp Gln Ile Val Asp Pro Leu His Arg
725 730 735

Thr Ile Glu Thr Phe Ala Lys Glu Glu Pro Lys Glu Asp Ile Asp Val
740 745 750

Ser Ile Leu Pro Gln Leu Glu His Cys Ser Ser Arg Lys Met Asn Thr
755 760 765

Trp Leu Gly Ile Phe Tyr Gly Tyr Lys Gly Leu Leu Leu Leu Gly
770 775 780

Ile Phe Leu Ala Tyr Glu Thr Lys Ser Val Ser Thr Glu Lys Ile Asn
785 790 795 800

Asp His Arg Ala Val Gly Met Ala Ile Tyr Asn Val Ala Val Leu Cys
805 810 815

Leu Ile Thr Ala Pro Val Thr Met Ile Leu Ser Ser Gln Gln Asp Ala
820 825 830

Ala Phe Ala Phe Ala Ser Leu Ala Ile Val Phe Ser Ser Tyr Ile Thr
835 840 845

Leu Val Val Leu Phe Val Pro Lys Met Arg Arg Leu Ile Thr Arg Gly
850 855 860

Glu Trp Gln Ser Glu Ala Gln Asp Thr Met Lys Thr Gly Ser Ser Thr
865 870 875 880

Asn Asn Asn Glu Glu Lys Ser Arg Leu Leu Glu Lys Glu Asn Arg
885 890 895

Glu Leu Glu Lys Ile Ile Ala Glu Lys Glu Glu Arg Val Ser Glu Leu
900 905 910

Arg His Gln Leu Gln Ser Arg Gln Gln Leu Arg Ser Arg Arg His Pro
915 920 925

Pro Thr Pro Pro Glu Pro Ser Gly Gly Leu Pro Arg Gly Pro Pro Glu
930 935 940

Pro Pro Asp Arg Leu Ser Cys Asp Gly Ser Arg Val His Leu Leu Tyr
945 950 955 960

Lys

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cca ccg ccg ccc gcg cgc ctg cta ctg cta ctg ctg ccg ctg ctg 96
Pro Pro Pro Ala Arg Leu Leu Leu Leu Leu Pro Leu Leu
20 25 30

ctg cct ctg gcg ccc ggg gcc tgg ggc tgg gcg ccg ggc gcc ccc cgg 144
Leu Pro Leu Ala Pro Gly Ala Trp Gly Trp Ala Arg Gly Ala Pro Arg
35 40 45

ccg ccg ccc agc agc ccg ccg ctc tcc atc atg ggc ctc atg ccg ctc 192
Pro Pro Pro Ser Ser Pro Pro Leu Ser Ile Met Gly Leu Met Pro Leu
50 55 60

acc aag gag gtg gcc aag ggc agc atc ggg cgc ggt gtg ctc ccc gcc 240
Thr Lys Glu Val Ala Lys Gly Ser Ile Gly Arg Gly Val Leu Pro Ala
65 70 75 80

gtg gaa ctg gcc atc gag cag atc cgc aac gag tca ctc ctg cgc ccc 288
Val Glu Leu Ala Ile Glu Gln Ile Arg Asn Glu Ser Leu Leu Arg Pro
85 90 95

tac ttc ctc gac ctg cgg ctc tat gac acg gag tgc gac aac gca aaa 336
Tyr Phe Leu Asp Leu Arg Leu Tyr Asp Thr Glu Cys Asp Asn Ala Lys
100 105 110

ggg ttg aaa gcc ttc tac gat gca ata aaa tac ggg ccg aac cac ttg 384
Gly Leu Lys Ala Phe Tyr Asp Ala Ile Lys Tyr Gly Pro Asn His Leu
115 120 125

atg gtg ttt gga ggc gtc tgt cca tcc gtc aca tcc atc att gca gag 432
Met Val Phe Gly Gly Val Cys Pro Ser Val Thr Ser Ile Ile Ala Glu
130 135 140

tcc ctc caa ggc tgg aat ctg gtg cag ctt tct ttt gct gca acc acg Ser Leu Gln Gly Trp Asn Leu Val Gln Leu Ser Phe Ala Ala Thr Thr 145 150 155 160	480
cct gtt cta gcc gat aag aaa aaa tac cct tat ttc ttt cggttaccgtc Pro Val Leu Ala Asp Lys Lys Tyr Pro Tyr Phe Phe Arg Thr Val 165 170 175	528
cca tca gac aat gcg gtg aat cca gcc att ctg aag ttg ctc aag cac Pro Ser Asp Asn Ala Val Asn Pro Ala Ile Leu Lys Leu Lys His 180 185 190	576
tac cag tgg aag cgc gtg ggc acg ctg acg caa gac gtt cag agg ttc Tyr Gln Trp Lys Arg Val Gly Thr Leu Thr Gln Asp Val Gln Arg Phe 195 200 205	624
tct gag gtg cgg aat gac ctg act gga gtt ctg tat ggc gag gac att Ser Glu Val Arg Asn Asp Leu Thr Gly Val Leu Tyr Gly Glu Asp Ile 210 215 220	672
gag att tca gac acc gag agc ttc tcc aac gat ccc tgt acc agt gtc Glu Ile Ser Asp Thr Glu Ser Phe Ser Asn Asp Pro Cys Thr Ser Val 225 230 235 240	720
aaa aag ctg aag ggg aat gat gtg cgg atc atc ctt ggc cag ttt gac Lys Lys Leu Lys Gly Asn Asp Val Arg Ile Ile Leu Gly Gln Phe Asp 245 250 255	768
cag aat atg gca gca aaa gtg ttc tgt tgt gca tac gag gag aac atg Gln Asn Met Ala Ala Lys Val Phe Cys Cys Ala Tyr Glu Glu Asn Met 260 265 270	816
tat ggt agt aaa tat cag tgg atc att ccg ggc tgg tac gag cct tct Tyr Gly Ser Lys Tyr Gln Trp Ile Ile Pro Gly Trp Tyr Glu Pro Ser 275 280 285	864
tgg tgg gag cag gtg cac acg gaa gcc aac tca tcc cgc tgc ctc cgg Trp Trp Glu Gln Val His Thr Glu Ala Asn Ser Ser Arg Cys Leu Arg 290 295 300	912
aag aat ctg ctt gct gcc atg gag ggc tac att ggc gtg gat ttc gag Lys Asn Leu Leu Ala Ala Met Glu Gly Tyr Ile Gly Val Asp Phe Glu 305 310 315 320	960
ccc ctg agc tcc aag cag atc aag acc atc tca gga aag act cca cag Pro Leu Ser Ser Lys Gln Ile Lys Thr Ile Ser Gly Lys Thr Pro Gln 325 330 335	1008
cag tat gag aga gag tac aac aac aag cgg tca ggc gtg ggg ccc agc Gln Tyr Glu Arg Glu Tyr Asn Asn Lys Arg Ser Gly Val Gly Pro Ser 340 345 350	1056
aag ttc cac ggg tac tac gat ggc atc tgg gtc atc gcc aag aca Lys Phe His Gly Tyr Ala Tyr Asp Gly Ile Trp Val Ile Ala Lys Thr 355 360 365	1104

ctg cag agg gcc atg gag aca ctg cat gcc agc agc cg ^g cac c ^a g ^c g ^g	370	375	380	1152
Ile Gln Arg Ala Met Glu Thr Leu His Ala Ser Ser Arg His Gln Arg				
atc cag gac ttc aac tac acg gac cac acg ctg ggc agg atc atc ctc	385	390	395	1200
Ile Gln Asp Phe Asn Tyr Thr Asp His Thr Leu Gly Arg Ile Ile Leu				
aat gcc atg aac gag acc aac ttc ttc ggg gtc acg ggt caa gtt gta	405	410	415	1248
Asn Ala Met Asn Glu Thr Asn Phe Phe Gly Val Thr Gly Gln Val Val				
ttc cgg aat ggg gag aga atg ggg acc att aaa ttt act caa ttt caa	420	425	430	1296
Phe Arg Asn Gly Glu Arg Met Gly Thr Ile Lys Phe Thr Gln Phe Gln				
gac agc agg gag gtg aag gtg gga gag tac aac gct gtg gcc gac aca	435	440	445	1344
Asp Ser Arg Glu Val Lys Val Gly Glu Tyr Asn Ala Val Ala Asp Thr				
ctg gag atc atc aat gac acc atc agg ttc caa gga tcc gaa cca cca	450	455	460	1392
Leu Glu Ile Ile Asn Asp Thr Ile Arg Phe Gln Gly Ser Glu Pro Pro				
aaa gac aag acc atc atc ctg gag cag ctg cg ^g aag atc tcc cta cct	465	470	475	1440
Lys Asp Lys Thr Ile Ile Leu Glu Gln Leu Arg Lys Ile Ser Leu Pro				
ctc tac agc atc ctc tct gcc ctc acc atc ctc ggg atg atc atg gcc	485	490	495	1488
Leu Tyr Ser Ile Leu Ser Ala Leu Thr Ile Leu Gly Met Ile Met Ala				
agt gct ttt ctc ttc aac atc aag aac cg ^g aat cag aag ctc ata	500	505	510	1536
Ser Ala Phe Leu Phe Asn Ile Lys Asn Arg Asn Gln Lys Leu Ile				
aag atg tcg agt cca tac atg aac aac ctt atc atc ctt gga ggg atg	515	520	525	1584
Lys Met Ser Ser Pro Tyr Met Asn Asn Leu Ile Ile Leu Gly Gly Met				
ctc tcc tat gct tcc ata ttt ctc ttt ggc ctt gat gga tcc ttt gtc	530	535	540	1632
Leu Ser Tyr Ala Ser Ile Phe Leu Phe Gly Leu Asp Gly Ser Phe Val				
tct gaa aag acc ttt gaa aca ctt tgc acc gtc agg acc tgg att ctc	545	550	555	1680
Ser Glu Lys Thr Phe Glu Thr Leu Cys Thr Val Arg Thr Trp Ile Leu				
acc gtg ggc tac acg acc gct ttt ggg gcc atg ttt gca aag acc tgg	565	570	575	1728
Thr Val Gly Tyr Thr Ala Phe Gly Ala Met Phe Ala Lys Thr Trp				
aga gtc cac gcc atc ttc aaa aat gtg aaa atg aag aag aac atc atc	580	585	590	1776
Arg Val His Ala Ile Phe Lys Asn Val Lys Met Lys Lys Ile Ile				
aag gac cag aaa ctg ctt gtg atc gtg ggg ggc atg ctg ctg atc gac				1824

Lys Asp Gln Lys Leu Leu Val Ile Val Gly Gly Met Leu Leu Ile Asp			
595	600	605	
ctg tgt atc ctg atc tgc tgg cag gct gtg gac ccc ctg cga agg aca			1872
Leu Cys Ile Leu Ile Cys Trp Gln Ala Val Asp Pro Leu Arg Arg Thr			
610	615	620	
gtg gag aag tac agc atg gag ccg gac cca gca gga cgg gat atc tcc			1920
Val Glu Lys Tyr Ser Met Glu Pro Asp Pro Ala Gly Arg Asp Ile Ser			
625	630	635	640
atc cgc cct ctc ctg gag cac tgt gag aac acc cat atg acc atc tgg			1968
Ile Arg Pro Leu Leu Glu His Cys Glu Asn Thr His Met Thr Ile Trp			
645	650	655	
ctt ggc atc gtc tat gcc tac aag gga ctt ctc atg ttg ttc ggt tgt			2016
Leu Gly Ile Val Tyr Ala Tyr Lys Gly Leu Leu Met Leu Phe Gly Cys			
660	665	670	
ttc tta gct tgg gag acc cgc aac gtc agc atc ccc gca ctc aac gac			2064
Phe Leu Ala Trp Glu Thr Arg Asn Val Ser Ile Pro Ala Leu Asn Asp			
675	680	685	
agc aag tac atc ggg atg agt gtc tac aac gtg ggg atc atg tgc atc			2112
Ser Lys Tyr Ile Gly Met Ser Val Tyr Asn Val Gly Ile Met Cys Ile			
690	695	700	
atc ggg gcc gct gtc tcc ttc ctg acc cgg gac cag ccc aat gtg cag			2160
Ile Gly Ala Ala Val Ser Phe Leu Thr Arg Asp Gln Pro Asn Val Gln			
705	710	715	720
ttc tgc atc gtg gct ctg gtc atc atc ttc tgc agc acc atc acc ctc			2208
Phe Cys Ile Val Ala Leu Val Ile Ile Phe Cys Ser Thr Ile Thr Leu			
725	730	735	
tgc ctg gta ttc gtg ccg aag ctc atc acc ctg aga aca aac cca gat			2256
Cys Leu Val Phe Val Pro Lys Leu Ile Thr Leu Arg Thr Asn Pro Asp			
740	745	750	
gca gca acg cag aac agg cga ttc cag ttc act cag aat cag aag aaa			2304
Ala Ala Thr Gln Asn Arg Arg Phe Gln Phe Thr Gln Asn Gln Lys Lys			
755	760	765	
gaa gat tct aaa acg tcc acc tcg gtc acc agt gtg aac caa gcc agc			2352
Glu Asp Ser Lys Thr Ser Thr Ser Val Thr Ser Val Asn Gln Ala Ser			
770	775	780	
aca tcc cgc ctg gag ggc cta cag tca gaa aac cat cgc ctg cga atg			2400
Thr Ser Arg Leu Glu Gly Leu Gln Ser Glu Asn His Arg Leu Arg Met			
785	790	795	800
aag atc aca gag ctg gat aaa gac ttg gaa gag gtc acc atg cag ctg			2448
Lys Ile Thr Glu Leu Asp Lys Asp Leu Glu Val Thr Met Gln Leu			
805	810	815	
cag gac aca cca gaa aag acc acc tac att aaa cag aac cac tac caa			2496
Gln Asp Thr Pro Glu Lys Thr Thr Tyr Ile Lys Gln Asn His Tyr Gln			

820	825	830	
gag ctc aat gac atc ctc aac ctg gga aac ttc act gag agc aca gat .Glu Leu Asn Asp Ile Leu Asn Leu Gly Asn Phe Thr Glu Ser Thr Asp			2544
835	840	845	
gga gga aag gcc att tta aaa aat cac ctc gat caa aat ccc cag cta Gly Gly Lys Ala Ile Leu Lys Asn His Leu Asp Gln Asn Pro Gln Leu			2592
850	855	860	
cag tgg aac aca aca gag ccc tct cga aca tgc aaa gat cct ata gaa Gln Trp Asn Thr Thr Glu Pro Ser Arg Thr Cys Lys Asp Pro Ile Glu			2640
865	870	875	880
gat ata aac tct cca gaa cac atc cag cgt cgg ctg tcc ctc cag ctc Asp Ile Asn Ser Pro Glu His Ile Gln Arg Arg Leu Ser Leu Gln Leu			2688
885	890	895	
ccc atc ctc cac cac gcc tac ctc cca tcc atc gga ggc gtg gac gcc Pro Ile Leu His His Ala Tyr Leu Pro Ser Ile Gly Gly Val Asp Ala			2736
900	905	910	
agc tgt gtc agc ccc tgc gtc agc ccc acc gcc agc ccc cgc cac aga Ser Cys Val Ser Pro Cys Val Ser Pro Thr Ala Ser Pro Arg His Arg			2784
915	920	925	
cat gtg cca ccc tcc ttc cga gtc atg gtc tcg ggc ctg His Val Pro Pro Ser Phe Arg Val Met Val Ser Gly Leu			2823
930	935	940	
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 Leu Pro Leu Ala Pro Gly Ala Trp Gly Trp Ala Arg Gly Ala Pro Arg 35 40 45			
 Pro Pro Pro Ser Ser Pro Pro Leu Ser Ile Met Gly Leu Met Pro Leu 50 55 60			
 Thr Lys Glu Val Ala Lys Gly Ser Ile Gly Arg Gly Val Leu Pro Ala 65 70 75 80			

Val Glu Leu Ala Ile Glu Gln Ile Arg Asn Glu Ser Leu Leu Arg Pro
85 90 95

Tyr Phe Leu Asp Leu Arg Leu Tyr Asp Thr Glu Cys Asp Asn Ala Lys
100 105 110

Gly Leu Lys Ala Phe Tyr Asp Ala Ile Lys Tyr Gly Pro Asn His Leu
115 120 125

Met Val Phe Gly Gly Val Cys Pro Ser Val Thr Ser Ile Ile Ala Glu
130 135 140

Ser Leu Gln Gly Trp Asn Leu Val Gln Leu Ser Phe Ala Ala Thr Thr
145 150 155 160

Pro Val Leu Ala Asp Lys Lys Tyr Pro Tyr Phe Phe Arg Thr Val
165 170 175

Pro Ser Asp Asn Ala Val Asn Pro Ala Ile Leu Lys Leu Leu Lys His
180 185 190

Tyr Gln Trp Lys Arg Val Gly Thr Leu Thr Gln Asp Val Gln Arg Phe
195 200 205

Ser Glu Val Arg Asn Asp Leu Thr Gly Val Leu Tyr Gly Glu Asp Ile
210 215 220

Glu Ile Ser Asp Thr Glu Ser Phe Ser Asn Asp Pro Cys Thr Ser Val
225 230 235 240

Lys Lys Leu Lys Gly Asn Asp Val Arg Ile Ile Leu Gly Gln Phe Asp
245 250 255

Gln Asn Met Ala Ala Lys Val Phe Cys Cys Ala Tyr Glu Glu Asn Met
260 265 270

Tyr Gly Ser Lys Tyr Gln Trp Ile Ile Pro Gly Trp Tyr Glu Pro Ser
275 280 285

Trp Trp Glu Gln Val His Thr Glu Ala Asn Ser Ser Arg Cys Leu Arg
290 295 300

Lys Asn Leu Leu Ala Ala Met Glu Gly Tyr Ile Gly Val Asp Phe Glu
305 310 315 320

Pro Leu Ser Ser Lys Gln Ile Lys Thr Ile Ser Gly Lys Thr Pro Gln
325 330 335

Gln Tyr Glu Arg Glu Tyr Asn Asn Lys Arg Ser Gly Val Gly Pro Ser
340 345 350

Lys Phe His Gly Tyr Ala Tyr Asp Gly Ile Trp Val Ile Ala Lys Thr
355 360 365

Leu Gln Arg Ala Met Glu Thr Leu His Ala Ser Ser Arg His Gln Arg
370 375 380

Ile Gln Asp Phe Asn Tyr Thr Asp His Thr Leu Gly Arg Ile Ile Leu
385 390 395 400

Asn Ala Met Asn Glu Thr Asn Phe Phe Gly Val Thr Gly Gln Val Val
405 410 415

Phe Arg Asn Gly Glu Arg Met Gly Thr Ile Lys Phe Thr Gln Phe Gln
420 425 430

Asp Ser Arg Glu Val Lys Val Gly Glu Tyr Asn Ala Val Ala Asp Thr
435 440 445

Leu Glu Ile Ile Asn Asp Thr Ile Arg Phe Gln Gly Ser Glu Pro Pro
450 455 460

Lys Asp Lys Thr Ile Ile Leu Glu Gln Leu Arg Lys Ile Ser Leu Pro
465 470 475 480

Leu Tyr Ser Ile Leu Ser Ala Leu Thr Ile Leu Gly Met Ile Met Ala
485 490 495

Ser Ala Phe Leu Phe Phe Asn Ile Lys Asn Arg Asn Gln Lys Leu Ile
500 505 510

Lys Met Ser Ser Pro Tyr Met Asn Asn Leu Ile Ile Leu Gly Gly Met
515 520 525

Leu Ser Tyr Ala Ser Ile Phe Leu Phe Gly Leu Asp Gly Ser Phe Val

530

535

540

Ser Glu Lys Thr Phe Glu Thr Leu Cys Thr Val Arg Thr Trp Ile Leu
545 550 555 560

Thr Val Gly Tyr Thr Thr Ala Phe Gly Ala Met Phe Ala Lys Thr Trp
565 570 575

Arg Val His Ala Ile Phe Lys Asn Val Lys Met Lys Lys Ile Ile
580 585 590

Lys Asp Gln Lys Leu Leu Val Ile Val Gly Gly Met Leu Leu Ile Asp
595 600 605

Leu Cys Ile Leu Ile Cys Trp Gln Ala Val Asp Pro Leu Arg Arg Thr
610 615 620

Val Glu Lys Tyr Ser Met Glu Pro Asp Pro Ala Gly Arg Asp Ile Ser
625 630 635 640

Ile Arg Pro Leu Leu Glu His Cys Glu Asn Thr His Met Thr Ile Trp
645 650 655

Leu Gly Ile Val Tyr Ala Tyr Lys Gly Leu Leu Met Leu Phe Gly Cys
660 665 670

Phe Leu Ala Trp Glu Thr Arg Asn Val Ser Ile Pro Ala Leu Asn Asp
675 680 685

Ser Lys Tyr Ile Gly Met Ser Val Tyr Asn Val Gly Ile Met Cys Ile
690 695 700

Ile Gly Ala Ala Val Ser Phe Leu Thr Arg Asp Gln Pro Asn Val Gln
705 710 715 720

Phe Cys Ile Val Ala Leu Val Ile Ile Phe Cys Ser Thr Ile Thr Leu
725 730 735

Cys Leu Val Phe Val Pro Lys Leu Ile Thr Leu Arg Thr Asn Pro Asp
740 745 750

Ala Ala Thr Gln Asn Arg Arg Phe Gln Phe Thr Gln Asn Gln Lys Lys
755 760 765

Glu Asp Ser Lys Thr Ser Thr Ser Val Thr Ser Val Asn Gln Ala Ser
770 775 780

Thr Ser Arg Leu Glu Gly Leu Gln Ser Glu Asn His Arg Leu Arg Met
785 790 795 800

Lys Ile Thr Glu Leu Asp Lys Asp Leu Glu Glu Val Thr Met Gln Leu
805 810 815

Gln Asp Thr Pro Glu Lys Thr Thr Tyr Ile Lys Gln Asn His Tyr Gln
820 825 830

Glu Leu Asn Asp Ile Leu Asn Leu Gly Asn Phe Thr Glu Ser Thr Asp
835 840 845

Gly Gly Lys Ala Ile Leu Lys Asn His Leu Asp Gln Asn Pro Gln Leu
850 855 860

Gln Trp Asn Thr Thr Glu Pro Ser Arg Thr Cys Lys Asp Pro Ile Glu
865 870 875 880

Asp Ile Asn Ser Pro Glu His Ile Gln Arg Arg Leu Ser Leu Gln Leu
885 890 895

Pro Ile Leu His His Ala Tyr Leu Pro Ser Ile Gly Gly Val Asp Ala
900 905 910

Ser Cys Val Ser Pro Cys Val Ser Pro Thr Ala Ser Pro Arg His Arg
915 920 925

His Val Pro Pro Ser Phe Arg Val Met Val Ser Gly Leu
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